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NEWS 6 FEB 22 Updates in EPFULL; IPC 8 enhancements added
NEWS 7 FEB 27 New STN AnaVist pricing effective March 1, 2006
NEWS 8 MAR 03 Updates in PATDPA; addition of IPC 8 data without attributes
NEWS 9 MAR 22
                EMBASE is now updated on a daily basis
NEWS 10 APR 03
                New IPC 8 fields and IPC thesaurus added to PATDPAFULL
NEWS 11 APR 03
                Bibliographic data updates resume; new IPC 8 fields and IPC
                thesaurus added in PCTFULL
NEWS 12 APR 04
                STN AnaVist $500 visualization usage credit offered
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                LINSPEC, learning database for INSPEC, reloaded and enhanced
NEWS 14 APR 12
                Improved structure highlighting in FQHIT and QHIT display
                 in MARPAT
NEWS 15 APR 12 Derwent World Patents Index to be reloaded and enhanced during
                second quarter; strategies may be affected
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        MAY 10
                CA/CAplus enhanced with 1900-1906 U.S. patent records
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        MAY 11
                KOREAPAT updates resume
NEWS 18 MAY 19
                Derwent World Patents Index to be reloaded and enhanced
NEWS 19 MAY 30 IPC 8 Rolled-up Core codes added to CA/Caplus and
                USPATFULL/USPAT2
NEWS 20 MAY 30
                The F-Term thesaurus is now available in CA/CAplus
NEWS 21
        JUN 02
                The first reclassification of IPC codes now complete in
                 INPADOC
                 FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,
NEWS EXPRESS
                CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
                AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
                V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT
                http://download.cas.org/express/v8.0-Discover/
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E12 1 STOCKMAN CAMPBELL KEITH HENRY/AU

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L1 86 "STOCKMAN BRIAN J"/AU OR "STOCKMAN BRIAN JOHN"/AU

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L2 61 DUP REM L1 (25 DUPLICATES REMOVED)

=> nmr and 12

L3 52 NMR AND L2

=> library and 13

L4 8 LIBRARY AND L3

=> relax? and 13

L5 6 RELAX? AND L3

=> 14 and 15

L6 1 L4 AND L5

=> d ibib abs 16

SOURCE:

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:563654 CAPLUS

DOCUMENT NUMBER: 135:313029

TITLE: Screening of compound libraries for protein binding

using flow-injection nuclear magnetic resonance

spectroscopy

AUTHOR(S): Stockman, Brian J.; Farley, Kathleen A.;

Angwin, Daneen T.

CORPORATE SOURCE: Structural, Analytical, and Medicinal Chemistry,

Pharmacia Corporation, Kalamazoo, MI, 49001, USA Methods in Enzymology (2001), 338 (Nuclear Magnetic

Resonance of Biological Macromolecules, Part A),

230-246

CODEN: MENZAU; ISSN: 0076-6879

PUBLISHER: Academic Press

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 48 refs on the use of flow-injection NMR

spectroscopy to screen compound libraries for protein binding. Topics include data acquisition hardware and software; flow probe calibration and

system optimization; design of small mol. screening libraries;

relaxation-edited flow-injection NMR screening; data

anal.; and comparisons between flow and traditional methods. (c) 2001

Academic Press.

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT 18:40:38 ON 21 JUN 2006

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86 E1 OR E2 L1

61 DUP REM L1 (25 DUPLICATES REMOVED) L2

L3 52 NMR AND L2

8 LIBRARY AND L3

L5 6 RELAX? AND L3

L6 1 L4 AND L5

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=> d ibib abs 14 1-8

ANSWER 1 OF 8 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

2004:332743 BIOSIS ACCESSION NUMBER: PREV200400337451 DOCUMENT NUMBER:

TITLE: Methods for creating a compound library.

AUTHOR(S): Stockman, Brian J. [Inventor, Reprint Author]
CORPORATE SOURCE: ASSIGNEE: Pharmacia & Upjohn Company

PATENT INFORMATION: US 6764858 20040720

SOURCE: Official Gazette of the United States Patent and Trademark

> Office Patents, (July 20 2004) Vol. 1284, No. 3. http://www.uspto.gov/web/menu/patdata.html. e-file.

ISSN: 0098-1133 (ISSN print).

DOCUMENT TYPE: Patent

LANGUAGE: English ENTRY DATE:

Entered STN: 4 Aug 2004 Last Updated on STN: 4 Aug 2004

ΔR A method for developing a library of compounds, the compound library, a method for identifying ligands for target molecules,

and a method for identifying lead chemical templates, which, for example, can be used in drug discovery and design are provided. Certain

embodiments of these methods include the use of NMR spectroscopy.

ANSWER 2 OF 8 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2004:101827 BIOSIS DOCUMENT NUMBER: PREV200400104165

TITLE: Methods for creating a compound library and

identifying lead chemical templates and ligands for target

molecules.

AUTHOR(S): Stockman, Brian J. [Inventor, Reprint Author];

Farley, Kathleen A. [Inventor]; Dalvit, Claudio [Inventor]

Kalamazoo, MI, USA CORPORATE SOURCE:

ASSIGNEE: Pharmacia & Upjohn Company

PATENT INFORMATION: US 6677160 20040113

SOURCE: Official Gazette of the United States Patent and Trademark

> Office Patents, (Jan 13 2004) Vol. 1278, No. 2. http://www.uspto.gov/web/menu/patdata.html. e-file.

ISSN: 0098-1133 (ISSN print).

DOCUMENT TYPE:

Patent English

LANGUAGE: ENTRY DATE:

Entered STN: 18 Feb 2004

Last Updated on STN: 18 Feb 2004

A method for developing a library of compounds, the compound library, a method for identifying ligands for target molecules,

and a method for identifying lead chemical templates, which, for example,

can be used in drug discovery and design are provided. Certain

embodiments of these methods include the use of NMR

spectroscopy.

ANSWER 3 OF 8 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: DOCUMENT NUMBER:

2002:38396 BIOSIS

TITLE:

PREV200200038396

Screening of compound libraries for protein binding using

flow-injection nuclear magnetic resonance spectroscopy.

AUTHOR(S):

Stockman, Brian J.; Farley, Kathleen A.; Angwin,

Daneen T.

SOURCE:

James, Thomas L.; Dotsch, Volker; Schmitz, Uli. Methods Enzymol., (2001) pp. 230-246. Methods in Enzymology. Nuclear magnetic resonance of biological macromolecules:

Part A. print.

Publisher: Academic Press Inc., 525 B Street, Suite 1900,

San Diego, CA, 92101-4495, USA; Academic Press Ltd., Harcourt Place, 32 Jamestown Road, London, NW1 7BY, UK.

Series: Methods in Enzymology.

CODEN: MENZAU. ISSN: 0076-6879. ISBN: 0-12-182239-7

(cloth).

DOCUMENT TYPE:

Book Book; (Book Chapter)

LANGUAGE:

English

Entered STN: 2 Jan 2002 ENTRY DATE:

Last Updated on STN: 25 Feb 2002

ANSWER 4 OF 8

BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN 1995:161682 BIOSIS

ACCESSION NUMBER: DOCUMENT NUMBER:

PREV199598175982

TITLE:

Chemical shift differences between free and Fab-bound peptide correlate with a two-stage selection of peptide

sequences from a random phage display library to

delineate critical and non-critical residues from antibody

recognition.

AUTHOR(S):

Stockman, Brian J. [Reprint author]; Bannow,

Carol A.; Miceli, Robert M.; Degraaf, Michael E.; Fischer,

H. David; Smith, Clark W.

CORPORATE SOURCE:

Physical Analytical Chem., M/S 7255-209-007, 301 Henrietta

St., Upjohn Co., Kalamazoo, MI 49001, USA

SOURCE:

International Journal of Peptide and Protein Research,

(1995) Vol. 45, No. 1, pp. 11-16.

CODEN: IJPPC3. ISSN: 0367-8377.

DOCUMENT TYPE:

Article

LANGUAGE:

English

ENTRY DATE: Entered STN: 11 Apr 1995

Last Updated on STN: 11 Apr 1995

AB Epitope libraries provide a method to identify peptide ligands for antibodies, receptors or other binding proteins. As such, they provide a powerful tool to rapidly identify lead ligands in the drug discovery process. In an attempt to correlate structural information with the results from peptide screening, we have used NMR spectroscopy of peptide/antibody complexes to demonstrate that core residues identified through a two-stage selection process undergo a larger structural change upon binding antibody than do positions in the peptide amenable to a variety of side chains. The model system used was the M2 monoclonal antibody/Flag octapeptide epitope system. We have analyzed two peptides: Ac-Asp-Tyr-Lys-Leu-Gly-Asp-Asp-Leu-NH-2 (peptide 1), which contains several non-core positions randomized, and Ac-Asp-Tyr-Lys-Asp-Asp-Asp-Asp-Asp-Leu-NH-2 (peptide 2), which closely corresponds to the original Flag sequence. Enrichment of the peptides with 15N facilitated the investigation by permitting spectral editing of the peptide resonances in the presence of antibody. For peptide 1 the absolute shifts for the free vs. Fab-bound peptide were found to be largest for the amide groups of Asp-1 and Asp-6, in agreement with classification of these residues as critical by the phage display library selection process. For peptide 2 the largest absolute shifts were observed for Asp-1 and Asp-4, with the other aspartic acid residues also showing significant but smaller changes.

L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2002:965009 CAPLUS

DOCUMENT NUMBER:

138:33301

TITLE:

Methods for creating a compound library, and

use in drug discovery and design

INVENTOR(S):

Stockman, Brian J.; Farley, Kathleen A.

PATENT ASSIGNEE(S):

Pharmacia & Upjohn, USA

SOURCE:

U.S. Pat. Appl. Publ., 34 pp., Cont.-in-part of U.S.

Ser. No. 677,197.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002192707	A1	20021219	US 2001-44219	20011119
US 6764858	B2	20040720		
US 6677160	B1	20040113	US 2000-677107	20000929
US 2004086948	A1	20040506	US 2003-694385	20031027
PRIORITY APPLN. INFO.:			US 1999-156818P P	19990929
			US 1999-161682P P	19991026
			US 2000-192685P P	20000328
			US 2000-677107 A	2 20000929

AB A method for developing a library of compds., the compound library, a method for identifying ligands for target mols., and a method for identifying lead chemical templates, which, for example, can be used in drug discovery and design are provided. Certain embodiments of these methods include the use of NMR spectroscopy.

REFERENCE COUNT:

THERE ARE 148 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN

148

ACCESSION NUMBER: 2002:894025 CAPLUS

DOCUMENT NUMBER: 139:78071

TITLE: NMR screening techniques in drug discovery

and drug design

AUTHOR(S):

Stockman, Brian J.; Dalvit, Claudio

CORPORATE SOURCE:

Structural, Analytical & Medicinal Chemistry,

Pharmacia, Kalamazoo, MI, 49001, USA

SOURCE:

Progress in Nuclear Magnetic Resonance Spectroscopy

(2002), 41(3-4), 187-231

CODEN: PNMRAT; ISSN: 0079-6565

PUBLISHER: DOCUMENT TYPE: Elsevier Science B.V. Journal; General Review

LANGUAGE: English

A review describes the progress in the field of NMR (NMR

) screening strategies. It provides a phys. and math. basis of the various NMR screening techniques and describes examples from the literature where the techniques have been applied to biol. systems.

Emphasis will be placed on applications in drug discovery and drug design.

A discussion on NMR screening library design is also

included, with particular emphasis on the elegant SHAPES library and its applications. The review will conclude with sections on NMR screening's impact on chemical and biol., prospects for

automation and future directions.

REFERENCE COUNT:

159 THERE ARE 159 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

ANSWER 7 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2001:563654 CAPLUS

DOCUMENT NUMBER:

135:313029

TITLE:

Screening of compound libraries for protein binding

using flow-injection nuclear magnetic resonance

spectroscopy

AUTHOR(S):

Stockman, Brian J.; Farley, Kathleen A.;

Angwin, Daneen T.

CORPORATE SOURCE:

Structural, Analytical, and Medicinal Chemistry, Pharmacia Corporation, Kalamazoo, MI, 49001, USA

SOURCE:

Methods in Enzymology (2001), 338 (Nuclear Magnetic Resonance of Biological Macromolecules, Part A),

230-246

CODEN: MENZAU; ISSN: 0076-6879

PUBLISHER:

Academic Press

DOCUMENT TYPE:

Journal; General Review

LANGUAGE:

English

A review with 48 refs on the use of flow-injection NMR

spectroscopy to screen compound libraries for protein binding. Topics include data acquisition hardware and software; flow probe calibration and system optimization; design of small mol. screening libraries; relaxation-edited flow-injection NMR screening; data anal.; and comparisons between flow and traditional methods. (c) 2001 Academic Press.

REFERENCE COUNT:

48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 8 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2001:247291 CAPLUS

DOCUMENT NUMBER:

134:261221

TITLE:

Methods for creating a compound library and

identifying lead chemical templates and ligands for

target molecules

INVENTOR(S): PATENT ASSIGNEE(S): Stockman, Brian J.; Farley, Kathleen Pharmacia & Upjohn Company, USA

PCT Int. Appl., 61 pp.

CODEN: PIXXD2

SOURCE:

DOCUMENT TYPE:

Patent English

LANGUAGE: FAMILY ACC. NUM. COUNT:

. 2

PATENT INFORMATION:

	PATENT NO.				KIND DATE				APPLICATION NO.						DATE			
WO	WO 2001023330 WO 2001023330							WO 2000-US41034						20000929				
		ΑE,	AG,	AL,	AM,	AT,	AU, DM,	AZ,										
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AB A method for developing a library of compds., the compound library, a method for identifying ligands for target mols., and a method for identifying lead chemical templates, which, for example, can be used in drug discovery and design, are provided. Certain embodiments of these methods include the use of NMR spectroscopy.

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=> d ibib abs 15 1-6

L5 ANSWER 1 OF 6 MEDLINE on STN ACCESSION NUMBER: 2002708835 MEDLINE DOCUMENT NUMBER: PubMed ID: 12470257

TITLE: Fluorine-NMR competition binding experiments for

high-throughput screening of large compound mixtures.

AUTHOR: Dalvit Claudio; Flocco Maria; Veronesi Marina;

Stockman Brian J

CORPORATE SOURCE: Chemistry Department, Pharmacia, Viale Pasteur 10, Nerviano

(MI), 20014, Italy.. claudio.dalvit@pharmacia.com

SOURCE: Combinatorial chemistry & high throughput screening, (2002

Dec) Vol. 5, No. 8, pp. 605-11.

Journal code: 9810948. ISSN: 1386-2073.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200301

ENTRY DATE: Entered STN: 17 Dec 2002

Last Updated on STN: 11 Jan 2003 Entered Medline: 10 Jan 2003

AB High-throughput liqand-based NMR screening with competition binding experiments is extended to (19)F detection. Fluorine is a favorable nucleus for these experiments because of the significant contribution of the Chemical Shift Anisotropy (CSA) to the (19)F transverse relaxation of the ligand signal when bound to a macromolecular target. A low to moderate affinity ligand containing a fluorine atom is used as a reference molecule for the detection and characterization of new ligands. Titration NMR experiments with the selected reference compound are performed for finding the optimal set-up conditions for HTS and for deriving the binding constants of the identified NMR hits. Rapid HTS of large chemical mixtures and plant or fungi extracts against the receptor of interest is possible due to the high sensitivity of the (19)F nucleus and the absence of overlap with the signals of the mixtures to be screened. Finally, a novel approach for HTS using a reference molecule in combination with a control molecule is presented.

L5 ANSWER 2 OF 6 MEDLINE on STN ACCESSION NUMBER: 2002342083 MEDLINE DOCUMENT NUMBER: PubMed ID: 12083923

TITLE: High-throughput NMR-based screening with

competition binding experiments.

AUTHOR: Dalvit Claudio; Flocco Maria; Knapp Stefan; Mostardini

Marina; Perego Rita; Stockman Brian J; Veronesi

Marina; Varasi Mario

CORPORATE SOURCE: Chemistry Department, Pharmacia, Viale Pasteur 10, 20014

Nerviano (MI), Milan, Italy.. claudio.dalvit@pharmacia.com

SOURCE: Journal of the American Chemical Society, (2002 Jul 3) Vol.

124, No. 26, pp. 7702-9.

Journal code: 7503056. ISSN: 0002-7863.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200208

ENTRY DATE: Entered STN: 27 Jun 2002

Last Updated on STN: 14 Aug 2002 Entered Medline: 13 Aug 2002

The Achilles heel of ligand-based NMR screening methods is their AΒ failure to detect high-affinity ligands and molecules that bind covalently to the receptor. We have developed a novel approach for performing high-throughput screening with NMR spectroscopy that overcomes this limitation. The method also permits detection of potential high-affinity molecules that are only marginally soluble, thus significantly enlarging the diversity of compounds amenable to NMR screening. The techniques developed utilize transverse and/or selective longitudinal relaxation parameters in combination with competition binding experiments. Mathematical expressions are derived for proper setup of the NMR experiments and for extracting an approximate value of the binding constant for the identified ligand from a single-point measurement. With this approach it is possible to screen thousands of compounds in a short period of time against protein or DNA and RNA fragments. The methodology can also be applied for screening plant and fungi extracts.

L5 ANSWER 3 OF 6 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:8482 BIOSIS DOCUMENT NUMBER: PREV200000008482

TITLE: Dynamics of stromelysin/inhibitor interactions studied by

15N NMR relaxation measurements:

Comparison of ligand binding to the S1-S3 and S1'-S3'

subsites.

AUTHOR(S): Yuan, Peng; Marshall, Vincent P.; Petzold, Gary L.;

Poorman, Roger A.; Stockman, Brian J. [Reprint

author]

CORPORATE SOURCE: Structural, Analytical and Medicinal Chemistry and Protein

Science, Pharmacia and Upjohn, 301 Henrietta St.,

Kalamazoo, MI, 49001, USA

SOURCE: Journal of Biomolecular NMR, (Sept., 1999) Vol. 15, No. 1,

pp. 55-64. print.

CODEN: JBNME9. ISSN: 0925-2738.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 23 Dec 1999

Last Updated on STN: 31 Dec 2001

AB This report describes the backbone amide dynamics of the uniformly 15N labeled catalytic domain of human stromelysin complexed to PNU-99533, a hydroxamate-containing ligand that binds to the S1'-S3' region (right side) of the stromelysin active site, and to PNU-107859 and PNU-142372, both thiadiazole-containing ligands that bind to the S1-S3 region (left side) of the stromelysin active site. 15N R1, R2 and NOE NMR relaxation measurements were recorded and analyzed for each complex. Different dynamic behaviors were observed for stromelysin complexed to the two classes of ligands, indicating that it may be possible to use protein dynamics to distinguish between different binding

orientations. In the absence of bound ligand at the S1-S3 subsites, the S1-S3 residues were found to be relatively rigid. In contrast, the S1'-S3' subsites were found to be flexible in the absence of interactions with ligand. The relative rigidness of the S1-S3 subsites may be responsible for MM P binding specificity by discriminating between ligands of different shapes. By contrast, the inherent flexibility of the S1'-S3' subsites allows structural rearrangement to accommodate a broad range of incoming substrates or inhibitors. Similarities and differences in dynamics observed for each complex provide insights into the interactions responsible for protein-ligand recognition. The relevance of protein dynamics to structure-based drug design is discussed.

L5 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:982940 CAPLUS

TITLE:

Competition-Based Nmr Binding Assays

AUTHOR(S):

Stockman, Brian J.

CORPORATE SOURCE:

Groton Laboratories, Pfizer Inc., Groton, CT, 06340,

USA

SOURCE:

Abstracts, 56th Southeast Regional Meeting of the American Chemical Society, Research Triangle Park, NC,

United States, November 10-13 (2004), GEN-302. American Chemical Society: Washington, D. C.

CODEN: 69FWAQ

DOCUMENT TYPE:

Conference; Meeting Abstract

LANGUAGE:

English

AB Traditional ligand-observed NMR binding expts. are restricted to ligands with good aqueous solubility and are limited to the identification of ligands having target affinities in the M to mM range. Recently introduced competition-based NMR binding assays overcome these limitations and allow ligands with marginal aqueous solubility and target affinities in the nM range to be identified. Competition-based NMR binding assays utilizing WaterLOGSY, longitudinal relaxation, and transverse relaxation methods will be described. WaterLOGSY and longitudinal relaxation methods utilize 1H detection. Transverse relaxation methods can utilize either 1H or 19F detection. The advantages of 19F detection, including high sensitivity and reduced spectral overlap, will be discussed.

L5 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2001:563654 CAPLUS

DOCUMENT NUMBER:

135:313029

TITLE:

Screening of compound libraries for protein binding

using flow-injection nuclear magnetic resonance

spectroscopy

AUTHOR(S):

Stockman, Brian J.; Farley, Kathleen A.;

Angwin, Daneen T.

CORPORATE SOURCE:

Structural, Analytical, and Medicinal Chemistry, Pharmacia Corporation, Kalamazoo, MI, 49001, USA Methods in Enzymology (2001), 338 (Nuclear Magnetic

SOURCE:

Resonance of Biological Macromolecules, Part A),

230-246

CODEN: MENZAU; ISSN: 0076-6879

PUBLISHER:

Academic Press

DOCUMENT TYPE:

Journal; General Review

LANGUAGE:

English

AB A review with 48 refs on the use of flow-injection NMR spectroscopy to screen compound libraries for protein binding. Topics include data acquisition hardware and software; flow probe calibration and system optimization; design of small mol. screening libraries; relaxation-edited flow-injection NMR screening; data anal.; and comparisons between flow and traditional methods. (c) 2001 Academic Press.

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:231124 CAPLUS

DOCUMENT NUMBER: 116:231124

TITLE: NMR studies of structure and dynamics of

isotope enriched proteins

AUTHOR(S): Wagner, Gerhard; Thanabal, V.; Stockman, Brian

J.; Peng, Jeffrey W.; Nirmala, N. R.; Hyberts,

Sven G.; Goldberg, Matthew S.; Detlefsen, David J.;

Clubb, Robert T.; Adler, Marc

CORPORATE SOURCE: Dep. Biol. Chem. Mol. Pharmacol., Harvard Med. Sch.,

Boston, MA, 02115, USA

SOURCE: Biopolymers (1992), 32(4), 381-90

CODEN: BIPMAA; ISSN: 0006-3525

DOCUMENT TYPE: Journal LANGUAGE: English

AB Structural studies of globular proteins by NMR can be enhanced by isotope enrichment with 15N, and with both 15N and 13C. Using these techniques, several large proteins with up to 186 residues were assigned and structural questions addressed. Furthermore, heteronuclear and homonuclear vicinal coupling consts. were accurately measured. This involves in part multidimensional multiple resonance expts. This is important for characterization of minor conformational changes caused by mutations. Isotope enrichment was also used to study the internal mobility of proteins. Novel methods for measuring accurately 15N relaxation parameters, in particular transverse relaxation rates were also developed. This has led toward a method for directly mapping spectral d. functions of the rotational motions of N-H bond vectors in proteins. The protein system discussed include the unlabeled proteins kistrin and cytochrome c551, and the labeled proteins elgin c, a flavodoxin, and human dihydrofolate reductase.

=> relax? and nmr

L7 67575 RELAX? AND NMR

=> library and inject? and ((multi or 96) (w) well) and 17

L8 0 LIBRARY AND INJECT? AND ((MULTI OR 96) (W) WELL) AND L7

=> library and inject? and 17

L9 2 LIBRARY AND INJECT? AND L7

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PROCESSING COMPLETED FOR L9

L10 2 DUP REM L9 (0 DUPLICATES REMOVED)

=> d ibib abs 110 1-2

L10 ANSWER 1 OF 2 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2001-300093 [31] WPIDS

DOC. NO. NON-CPI: N2001-215345 DOC. NO. CPI: C2001-092085

TITLE: Methods for creating a compound library and

identifying lead chemical templates and ligands for

target molecules by comparing NMR spectra of a

mixture in the presence of a target molecule with those

obtained without the target molecule.

DERWENT CLASS: B04 J04 S02 S03

INVENTOR(S): FARLEY, K; STOCKMAN, B J; FARLEY, K A; DALVIT, C

PATENT ASSIGNEE(S): (PHAA) PHARMACIA & UPJOHN CO; (PHAA) PHARMACIA & UPJOHN

COUNTRY COUNT: 95 PATENT INFORMATION:

PAT	ENT	ИО			KIN	I DI	ATI	E 	, , , , , , , , , , , , , , , , , , ,	VEE	<		LA	I	2G								
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		NL	OA	PT	SD	SE	\mathtt{SL}	SZ	TZ	UG	zw												
	W:	ΑE	AG	AL	MΑ	ΑT	ΑU	ΑZ	BA	BB	BG	BR	BY	BZ	CA	CH	CN	CR	CU	CZ	DE	DK	DM
		DZ	EE	ES	FI	GB	GD	GE	GH	GM	HR	HU	ID	ΙL	IN	IS	JΡ	KE	KG	ΚP	KR	ΚZ	LC
		LK	LR	LS	LT	LU	LV	MA	MD	MG	MK	MN	MW	MX	ΜZ	NO	ΝZ	PL	PT	RO	RU	SD	SE
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ΕP	124	233	7		A2	200	209	925	(20	002	71)	Eì	1										
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		SI																					
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US	667	7160)		В1	200	040	L13	(20	040)5)												
US	200	4086	5948	3	A 1	200	0405	506	(20	0043	30)												
US	676	4858	3		В2	200	040	720	(20	0044	18)												

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001023330	A2	WO 2000-US41034	20000929
AU 2001014944	A	AU 2001-14944	20000929
EP 1242339	A2	EP 2000-977289	20000929
		WO 2000-US41034	20000929
US 2002192707	Al Provisional	US 1999-156818P	19990929
	Provisional	US 1999-161682P	19991026
	Provisional	US 2000-192685P	20000328
	CIP of	US 2000-677107	20000929
		US 2001-44219	20011119
US 6677160	Bl Provisional	US 1999-156818P	19990929
	Provisional	US 1999-161682P	19991026
	Provisional	US 2000-192685P	20000328
		US 2000-677107	20000929
US 2004086948	Al Provisional	US 1999-156818P	19990929
	Provisional	US 1999-161682P	19991026
	Provisional	US 2000-192685P	20000328
	Div ex	US 2000-677107	20000929
		US 2003-694385	20031027
US 6764858	B2 Provisional	US 1999-156818P	19990929
	Provisional	US 1999-161682P	19991026
	Provisional	US 2000-192685P	20000328
	CIP of	US 2000-677107	20000929
		US 2001-44219	20011119

FILING DETAILS:

PATENT NO	KIND	PATENT NO				
AU 2001014944 EP 1242339 US 2004086948	A Based on A2 Based on A1 Div ex	WO 2001023330 WO 2001023330 US 6677160				
PRIORITY APPLN. INFO	: US 2000-192685P 1999-156818P 1999-161682P 2000-677107 2001-44219	20000328; US 19990929; US 19991026; US 20000929; US 20011119; US				

2003-694385 20031027

AN 2001-300093 [31] WPIDS

AB WO 200123330 A UPAB: 20010607

NOVELTY - A method of creating a chemical compound library

comprises selecting compounds having a molecular weight of no more than
350Da and a solubility in deuteriated water of at least 1mM at room

temperature.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for

(i) a chemical compound **library** comprising compounds having a molecular weight of no more than 350Da and a solubility in deuteriated water of at least lmM at room temperature;

- (ii) a method of identifying a lead chemical template comprising identifying compounds from the **library** that function as a ligand to a target molecule having a dissociated constant of at least 100 mu M and using the ligand to identify a lead chemical template;
- (iii) a method of identifying a compound that binds to a target molecule comprising comparing relaxation-edited NMR spectra obtained from a flow-injection probe of a mixture of test compounds in the presence of a target molecule with the spectrum obtained without the target compound;
- (iv) a method of identifying a compound that binds to a target molecule comprising analyzing WaterLOGSY NMR spectra obtained from a flow-injection probe of a mixture of test compounds in the presence of a target molecule to distinguish binding compounds from non-binding compounds by virtue of the opposite sign of their water-ligand nOe's.

USE - The method is useful for creating a compound ${\tt library}$ and identifying lead chemical templates and ligands for target molecules. ${\tt Dwg.0/16}$

L10 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:563654 CAPLUS

DOCUMENT NUMBER: 135:313029

TITLE: Screening of compound libraries for protein binding

using flow-injection nuclear magnetic

resonance spectroscopy

AUTHOR(S): Stockman, Brian J.; Farley, Kathleen A.; Angwin,

Daneen T.

CORPORATE SOURCE: Structural, Analytical, and Medicinal Chemistry,

Pharmacia Corporation, Kalamazoo, MI, 49001, USA

SOURCE: Methods in Enzymology (2001), 338(Nuclear Magnetic

Resonance of Biological Macromolecules, Part A),

230-246

CODEN: MENZAU; ISSN: 0076-6879

PUBLISHER: Academic Press

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

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methods. (c) 2001 Academic Press.

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT 18:40:38 ON 21 JUN 2006 E STOCKMAN BRIAN?/AU 86 E1 OR E2 L161 DUP REM L1 (25 DUPLICATES REMOVED) L2L3 52 NMR AND L2 L4 8 LIBRARY AND L3 6 RELAX? AND L3 L5 L6 1 L4 AND L5 FILE 'STNGUIDE' ENTERED AT 18:43:22 ON 21 JUN 2006 FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT 18:50:10 ON 21 JUN 2006 FILE 'STNGUIDE' ENTERED AT 18:53:04 ON 21 JUN 2006

FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT

18:59:01 ON 21 JUN 2006

67575 RELAX? AND NMR L7

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2 DUP REM L9 (0 DUPLICATES REMOVED) L10

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